

# STORAGE

## FAQ

**Q** Can I use my iPod as an external disk to store files other than music?

**A** Yes, you can. Plug your iPod into your computer. If you're using iTunes 7, click on your iPod's icon in the Source list. Click on the Summary tab and tick the 'Enable disk use' box. If you're using an earlier version of iTunes, this option can be found in the Preferences dialog box under the Edit menu. If you have an iPod Shuffle, you'll be presented with a slider control used to determine how much space is devoted to your music and how much is used for storing other files. For more detailed instructions, refer to <http://docs.info.apple.com/article.html?artnum=61131>.

All iPods use the FAT32 disk format, so you won't be able to store files larger than 4GB. If you're running Windows Vista, make sure you're running the latest compatibility update; refer to <http://support.microsoft.com/kb/936824>.

**Alan Lu**  
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## ACER Altos EasyStore 2TB

★★★★  
£686 inc VAT

The Altos EasyStore 2TB is the first network-attached storage (NAS) device we've seen from Acer. It immediately stood out from other devices we've seen, due to its huge capacity of 2TB. The EasyStore actually consists of four 500GB SATA hard disks mounted on trays that easily slide out from the front of the unit if you need to replace or upgrade a disk. The black metal enclosure feels sturdy, but it is very loud. The din of its cooling fans even drowned out the noise of our PC, so you will want to keep it hidden away.

If your PC has the UPnP service turned on, the EasyStore will broadcast its presence and appear in My Network Places or Network. Double-clicking its icon takes you to the web configuration pages, which let you configure and change settings. The web configuration interface is well laid out, so this isn't difficult.

The Altos EasyStore can be configured as a RAID 0, 5 or 10 array. As a RAID 0 array, all four disks are joined together, providing 1.8TB of formatted storage. RAID 0 arrays tend to be much quicker than other RAID levels, but if one disk should fail then you'll lose all your data. As a RAID 5 array, the Altos EasyStore provides 1.4TB of storage, but all your data will be preserved if one disk should fail.

When configured as a RAID 10 array, the Altos EasyStore provides only 931GB of usable storage. RAID 10 tries to provide both speed and data security, since it automatically mirrors the contents of a RAID 0 array made up of one pair of the 500GB disks on to another RAID 0 array made up of the other two 500GB disks. This means that you should get the speed benefits of RAID 0, but if for



some reason a disk should fail then all your data will still be safe.

The Altos EasyStore was reasonably quick copying large files, but slow transferring small files. As a RAID 0 array, the Altos EasyStore copied large files at 12.28MB/s but it transferred small files at 0.96MB/s. It was a bit faster when configured as a RAID 10 array, as our results graphs show. As expected, the RAID 5 speeds lagged behind both our RAID 0 and 10 results; it copied large files at 9.11MB/s and small files at 0.68MB/s. The Altos EasyStore will be reasonably fast copying large files, such as videos or large Photoshop images, but will be frustratingly slow when dealing with small files, such as Word documents or a system backup.

The Altos EasyStore is easy to configure, has plenty of capacity, and costs a surprisingly low 37p per gigabyte. It is an attractive option if you need a RAID-capable NAS device that can be rebuilt easily if a disk fails, but it is distractingly loud and its slow small files performance means it's not ideal if you need quick access to your data.

Alan Lu

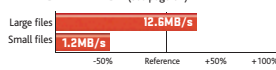
### SUMMARY

- ✓ Massive capacity
- ✗ Loud
- ✗ Slow small files performance

### NETWORK-ATTACHED STORAGE

4x 500GB SATA hard disks,  
10/100/1,000Mbit/s network connection,  
2x USB ports, print, USB disk, FTP server  
PART CODE ST.EASYS.2TB  
SUPPLIER [www.broadbandbuyer.co.uk](http://www.broadbandbuyer.co.uk)  
DETAILS [www.acer.co.uk](http://www.acer.co.uk)

### PERFORMANCE (see page 62)



## Also consider...

### CRUCIAL 1GB Gizmo! Overdrive

★★★★★  
£10 inc VAT

PRICE CUT!

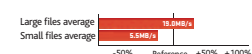


USB flash drives tend to be much slower than hard disks, but Crucial's 1GB Gizmo!

Overdrive can write files at 13MB/s and read them at 25MB/s. It wasn't as quick at reading small files, but at 10.65MB/s it is still faster than most. It was particularly slow only when writing small files, where it managed a speed of just 0.37MB/s.

The Overdrive is faster than most other flash drives, but it costs less than £15 including shipping, making it great value.

USB FLASH DRIVE 1GB capacity (973MB formatted), USB Hi-Speed  
PART CODE CT1GBUFDWHT00  
SUPPLIER [www.crucial.com/uk](http://www.crucial.com/uk)  
DETAILS [www.crucial.com/uk](http://www.crucial.com/uk)  
✓ Good performance; cheap  
FULL REVIEW Feb 07



### BUFFALO DriveStation Combo 500GB

★★★★★  
£100 inc VAT



Buffalo's DriveStation Combo costs just 22p per gigabyte. It is one of the fastest FireWire 400 disks we've seen and produced consistently solid results over its USB connection. The Memeo AutoBackup software automatically backs up your data while you work.

It is excellent value and a deserving winner of the Best Buy award in our recent external hard disk Labs round-up.

EXTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), USB Hi-Speed and FireWire 400 interfaces  
PART CODE HD-HC500IU2  
SUPPLIER [www.lambda-tek.co.uk](http://www.lambda-tek.co.uk)  
DETAILS [www.buffalo-technology.com](http://www.buffalo-technology.com) ✓ Good value; fast performance; good backup software  
FULL REVIEW Sept 2007



## LG GSA-H55N

★★★★★

£29 inc VAT



LG's GSA-H55N DVD writer allows you to password-protect your DVDs before burning them using Ahead's Nero disc-writing software. Files on such discs can't be opened without your password, but they are still visible in Windows Explorer with their thumbnails intact. A 12MB utility has to be downloaded and installed before passwords can be entered; we don't know why it isn't included on burned discs. The utility works only with Windows 2000 or later.

We were surprised by the fast disc-writing speeds. The GSA-H55N can't match its stated write speeds for single- or two-layer DVDs, but it is still one of the fastest DVD writers we've seen. Writing a full 4.7GB password-protected DVD took only a few seconds longer than a regular DVD.

The password-protection feature needs improvement, but it will deter casual snoopers. Regardless, this is a fast DVD writer at a low price.

Alan Lu

### SUMMARY

- ✓ Fast burning speeds
- ✓ Inexpensive
- ✗ Password protection needs work

INTERNAL DVD WRITER 20X DVD-R, 20X DVD+R, 6X DVD-RW, 8X DVD+RW, 10X DVD-R DL, 10X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW  
PART CODE GSA-H55N  
SUPPLIER [www.scan.co.uk](http://www.scan.co.uk) 0870 755 4747  
DETAILS [www.lge.com](http://www.lge.com)

### PERFORMANCE (see page 62)



## PIONEER BDC-202

★★★★

£141 inc VAT



If you wanted to watch Blu-ray movies on your PC, your only option has been to spend £500 on a Blu-ray writer. This is extravagant if you don't need to burn your own discs. Pioneer's BDC-202 can only read Blu-ray discs, but it burns DVDs and costs less than £200.

We had no trouble playing back Blu-ray movies, although you'll have to buy playback software such as CyberLink's PowerDVD Ultra (around £50, [www.cyberlink.com](http://www.cyberlink.com)) separately. Unfortunately, the BDC-202's stated and actual DVD write speeds are both behind those of other DVD writers. Although it couldn't reach its stated 12X for writing single-layer discs, it came close to its stated 4X when writing two-layer discs.

The BDC-202 is the cheapest way to play Blu-ray movies on your PC. But its disappointing burning performance means you'll need another DVD writer if you burn discs regularly.

Alan Lu

### SUMMARY

- ✓ Cheap for Blu-ray
- ✓ Good two-layer DVD writing speeds
- ✗ Slow at writing single-layer DVDs

BLU-RAY COMBO DRIVE 12X DVD-R, 12X DVD+R, 6X DVD-RW, 8X DVD+RW, 4X DVD-R DL, 4X DVD+R DL, 24X CD-R, 24X CD-RW  
PART CODE BDC-202  
SUPPLIER [www.dabs.com](http://www.dabs.com)  
DETAILS [www.pioneer.co.uk](http://www.pioneer.co.uk)

### PERFORMANCE (see page 62)



## CHOOSING AN... NAS Device

Follow the steps to find your ideal specs

CAPACITY: 250GB

INTERFACE: 100/1,000Mbit/s Ethernet

Recommended minimum in grey

**1** A basic network-attached storage (NAS) device with the specifications shown above will cost around £100. It has only a single hard disk, so you'll need to make backups to protect your data, and you can't upgrade its storage capacity.

Its Gigabit Ethernet interface means that it transfers data quickly, although to use it at this speed you'll need computers with Gigabit Ethernet network adaptors and a Gigabit Ethernet switch or router. Computers with 10/100 adaptors will still be able to access the NAS device, but at just 100Mbit/s.

**2** The amount of network storage you need depends on the types of files you use. If you want to store Word and Excel documents, for example, a 250GB device will be more than enough. If you intend to hoard DVD-quality video, however, then you'll need much more. A single DVD image can contain up to 8.5GB of data, so even a modest media collection will require around 500GB of storage space.

**3** If you can see no end to your storage needs, consider buying an upgradable NAS device. Many have a USB port so you can add a second external disk. Devices with spare disk trays allow for cheaper and faster upgrades in the future.

**4** If you want extra protection for your data, look for a device that supports RAID. A RAID 1 or RAID 5 array reduces the available capacity, but if one disk fails then your data remains safe (for details, see *Upgrade Workshop*, *Shopper* November 2006).

**5** If you need access to your files while you're away from home or the office, you need to look for an NAS with an FTP server. Some NAS devices can share a USB printer across your network, which will save you the expense of a buying an Ethernet printer. An NAS device with a Universal Plug and Play (UPnP) media server can stream your music, photos and videos to a network media player, which means that you can enjoy your media collection in another room.

## SEAGATE Barracuda 7200.10 Ultra ATA/100 500-GB Hard Drive

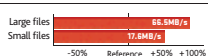
★★★★★

£71 inc VAT



**BEST BUY** If you need a high-capacity hard disk for your files but your PC's motherboard lacks a SATA port, Seagate's PATA 500GB Barracuda 7200.10 is ideal. The Barracuda is excellent value with an incredibly low cost per gigabyte of 15p. It's also very quick. It is the best PATA drive we've reviewed.

EXTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), PATA interface  
PART CODE ST3500630A  
SUPPLIER [www.dabs.com](http://www.dabs.com)  
DETAILS [www.seagate.com](http://www.seagate.com)  
✓ Low cost per gigabyte; fast for large files ✗ Not quite as quick with small files  
FULL REVIEW Jul 2007



## SAMSUNG SpinPoint T166-HD501LJ

★★★★★

£68 inc VAT



**BEST BUY** Samsung's 500GB SATA hard disk is a great choice if you need more space for programs, movies, music, photos and documents. It costs just 16p per gigabyte, but it's the fastest 7,200rpm SATA internal hard disk we've seen so far. It's an amazingly quick drive and great value, too.

3 1/2" INTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), SATA 300 interface, 7,200rpm spindle speed, 16MB cache  
PART CODE HD501LJ  
SUPPLIER [www.dabs.com](http://www.dabs.com)  
DETAILS [www.samsung.com](http://www.samsung.com)  
✓ Very fast; low cost per gigabyte FULL REVIEW Jul 07

